APPENDIX D

COMMENT RESPONSE DOCUMENT

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Mr. Cory Cruz

Albuquerque DoE

Dear Sirs; This draft Supplement Analysis of the Plutonium Pit program at los alamos is a bit of wishful thought, but as usual the scope is limited to overlook the obvious. Though it looks like the result of judicial review, which I am not privy to, that fire and earthquake in the geographic area implies volcanic magma which was part of the process which caused the many faults and fissures in that county.

The folly of an agency that works for massive destruction of life deciding to produce more and more cancer causing elements so they they can be bombers is a sorry sight. And the obviously volcanic aspect of local geology is overlooked, while testing finds magma ~~mak~~ above sea level under pajarito plateau is ignored. Just as the possible explosion of one of those weapons is just ignored. With how many weapons and how much more stored plutonium in TA-55, including all the stuff in the basement, the true potential is far beyond this puney analysis.

On what level were the many plutonium fires at Rocky Flats studied in the preparation of this document. These fires did not engulf the entire building yet were a terrific burden on the community. How would frequent fires effect other work at the facility. Does paragraph three on page 23 mean that these incidents are common at TA-55 or that ongoing pit production is not impacted by this document?

1-1

1-2

1-3

Comment Response 1-1

In summary, these comments indicate that volcanism, as evident from the existence of the caldera, should have been considered as an accident initiator.

This SA examined specific issues as directed by court order (see Section 2.3). Volcanism is not included in this analysis. However, volcanism has been addressed in other NEPA and Safety documentation. Volcanism is much less likely to start an accident than other events, such as earthquakes. That is why, in the SSM PEIS for example, earthquakes and other more likely events were examined, while volcanism was screened from being a dominant risk contributor.

Comment Response 1-2

This comment indicates a belief that the possible release of material from TA-55 is much greater than that established by this analysis. The individual's concern included the assumption that there is more plutonium at TA-55 because there are more weapons and more material in TA-55 due to pit manufacturing activities.

In order to manufacture pits, more material will not be used in the manufacturing lines. This analysis took into account material that could be exposed and therefore released during a fire scenario. In comparing this analysis to the 1969 fire at Rocky Flats, several factors should be considered. The same material type, or material-at-risk, was considered in this analysis as was involved in the fires at Rocky Flats. However, substantial differences exist between how much material was handled at Rocky Flats and the manner in which it was stored, etc. Rocky Flats could make approximately 2,000 pits per year and had substantial quantities of material in manufacturing lines to accomplish this mission. TA-55 will make no more than 80 pits per year. There is no need to increase the amount of material in the manufacturing lines to support the pit production mission. Therefore, pit manufacturing does not increase the amount of material that could be released beyond what could already be released based upon what is handled at PF-4. These quantities of material are well below what would have been considered the amount of material at risk at Rocky Flats.

It should be noted that nuclear weapons are not handled at LANL.

page 2

Would a building-wide fire produce nuclear blasts under certain circumstances? Could an isolated fire ignite plutonium residues in the duct work? Is that how the fire could spread? As usual it looks like this analysis was written by the three wise monkeys (who do not want to lose their jobs). Just a small seismic tembler can possible reallign the configuration of elements in a warhead pit and activate its critical mass.

1-3 Cont.

The section headings titled "PLAUSIBILITY..." reflect the total denial that numbs the mind of risk takers to danger. If these folks were only endangering themselves with their suicidal death wish, perhaps such a frivelous approach would be acceptable. Los Alamos sits between the Jemez Volcano, largest on the contenent which when last exploded, in geologic time not that long ago, spread a still evident layer of ash as far east as Iowa; and the Rio Grande Rift where earth's tectonic plates once collided to make the Rocky Mountain ranges. Where is the data on the effects of continental drift in regional stability in the enormous fault? Surely the "(i.e., once in every 250,000 years) at the top of page 26 does not reflect the commonly accepted volcanic history of activity in the Jemez. Meanwhile other researchers at LANL are trying to drill into the hot lava fields below the caulendera while researching how to make drill bits for harder and harder metals. This activity has a long history of failures but they seem bent on cracking into the molten core. They label it geo-thermal research but it has many other aspects, including possible earthquake and fire. This is a very dangerous place to make nuclear weapons.

1-4

The words probability and plausibility are used with redundancy without being defined on pp 9-10. All computer moiels are in doubt as they

1-5

Comment Response 1-3

This comment indicates that DOE omitted several areas that could result in the spread of a fire. The commentor also indicated that other on-going work at TA-55 could potentially start a fire or vice versa and these have not been considered in the accident analysis.

A seismic event can not cause a pit to reach critical mass. For a pit to reach critical mass, it must be compressed by high explosives in just the right way in order for chain reactions to occur and thus a nuclear blast (neither high explosives nor nuclear weapons are handled in TA-55). Seismic events or other random events do not create the conditions under which a pit could reach critical mass.

Appendix B is a detailed description of the criteria necessary for a fire to start and be sustained in order to spread into a building-wide fire. The analysis was not limited to the pit manufacturing area, but included an analysis of the other work going on in PF-4. The analysis examined the history of fires in all types of DOE buildings where plutonium was handled. This included the fires that occurred at Rocky Flats, process specific fire initiators in PF-4, and historical information on possible pre-cursors to fires in PF-4. Activities outside of PF-4 are sufficiently far away that they would not effect operations in the building.

Fires in PF-4 have been confined to gloveboxes and have been very infrequent. Several instances of possible pre-cursors were considered as fire initiators, even though the instances themselves never resulted in a fire. Thus, the analysis is considered conservative, When all of this information was assembled, the result was only one chance in 2.5 billion, that a fire could start and spread into a building-wide fire at PF-4.

Residues in the duct work were a concern at Rocky Flats, but did not contribute to any fire. The 1969 fire at the plant was sustained because plutonium was staged along connected glove-boxes. This is not the case at PF-4. Plutonium is not staged in the glove-box lines and must be stored in containers. These types of barriers ensure that a fire, if started in one glove-box, could not propagate to other glove-boxes. Although

page 3

reflect the programers prejudice. Real scientific research and data has been abandoned for pure conjecture. Certainly an event in PF-4 could and would impact other activities at TA-55 as would other events at TA-55 impact the entire Area. Many, many people work and breath and park and walk in the lots to work in the already huge plutonium reprossessing facility. Hundreds of people are presently impacted every time these parking lots are dusted with contamination and this is never reflected in the Lab's environmental reasearch.

1-6

Does the health of individuals in the immediate vicinity and the fate of all who reside on this continent, and especially those along this are at risk rift, unlike the techno-babble in italics on page 31 implies. To claim that bomb making is not a dangerous game with fatal consequences belied the real mission. Since there supposedly would be "no prompt fatalites" and"fatalaties would be expected in the general population.." somehow radiation sickness and cancer caused deaths do not count, only the deathly mission. And why is it that such illness is regarded such a minor inconvenience that only fatalities are judged significant?

1-7

The last conclusion on p. 33 shows the absurdity of the concept of probability risk assessment as we all know, with 100% probability, that noone will still be making bomb parts in this very same PF-4 in 10 billion years, thank God. This conclusion, like the second that puts seismic reoccurance intervals in two areas so close together at such vastly different time periods, lack credability.

The entire weapons industry is wasteful of resources and hazardous to all life on earth. Basically, a mad power trip which we New Mexicans are made victim. Thank you for rejecting this proposal.

bonnie bonneau bonnie bonneau
general secretary, legions of living light

Comment Response 1-3 (Cont.)

there is some minor contamination in the glove-box lines, there is nowhere near enough material to start or spread a fire.

Comment Response 1-4

This comment indicates that the analysis did not consider magma flow and continental drift in determining the frequency of an earthquake initiated building-wide fire at PF-4.

Tectonic forces, i.e., “magma flow and continental drift”, were considered when deriving earthquake probabilities. They are considered by studying the faults near the laboratory and near individual facilities. In both the SA and the Wong (1995) report, studies of the fault system are described. Characteristics of these faults are then used to derive the likelihood or potential for different magnitudes of ground motion or for surface rupture to occur.

Please note that the geo-thermal research that was done at the laboratory was not attempting to drill into the magma beneath the caldera. This geo-thermal research was conducted around Fenton Lake (southwest of the laboratory) and injected water into the ground. These activities did not have the potential for causing earthquakes or other seismic events.

Comment Response 1-5

Comments indicated that probability and plausibility were not adequately defined and explained.

Probability was defined as part of the definition for frequency on page 10 of the Supplement Analysis. Probability is the chance that an event will have a certain outcome, for example, every time a coin is flipped, there is a 50% chance of getting heads and a 50% chance of getting tails.

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Comment Response 1-5 (Cont.)

In the case of DOE's analysis of a building-wide fire propagating from a glove-box fire, the event is operating PF-4 over the course of a year and the possible outcomes are operating without a building-wide fire, or operating and having a building wide fire. For any year that we operate PF-4, there is essentially a 0.00000004% percent chance of having a building-wide fire, but at the same time there is a 99.99999996% chance that the building will operate during a year without a building-wide fire.

DOE was directed by the court to examine the plausibility of a building-wide fire at PF-4 under certain circumstances. Plausibility does not have a scientific definition. Whether or not DOE considered the outcome plausible was based on the results of the analysis. For the example of the coin toss, either heads or tails is considered very plausible because for each coin toss, each result has the same chance. On the other hand, for each year of operating PF-4, the probability of having a building-wide fire is very small; thus, building-wide fires are not considered plausible at PF-4.

Comment Response 1-6

This comment indicates that the analysis did not consider the impacts of accidents on people in TA-55 and the impacts of other activities in TA-55 on neighboring areas.

The analysis did consider the impacts of the accidents, discussed in this SA, on neighboring areas. In Appendix C, the scenario considered the extent of releases from PF-4 in a building-wide fire. Doses were calculated based on the hypothetical transport of this material to the population within a 50-mile radius of PF-4. The impact of a building-wide fire was estimated at 22-33 excess latent cancer fatalities to the population within a 50-mile radius of PF-4 (see response to comment 1-7).

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Comment Response 1-6 (Cont.)
Because this analysis was responding to specific issues from a court order, the analysis did not consider other potential accidents at TA-55. However, the LANL SWEIS provides a comprehensive accident analysis for the laboratory, including accidents at TA-55 as well as other areas at LANL and their impacts on surrounding areas.

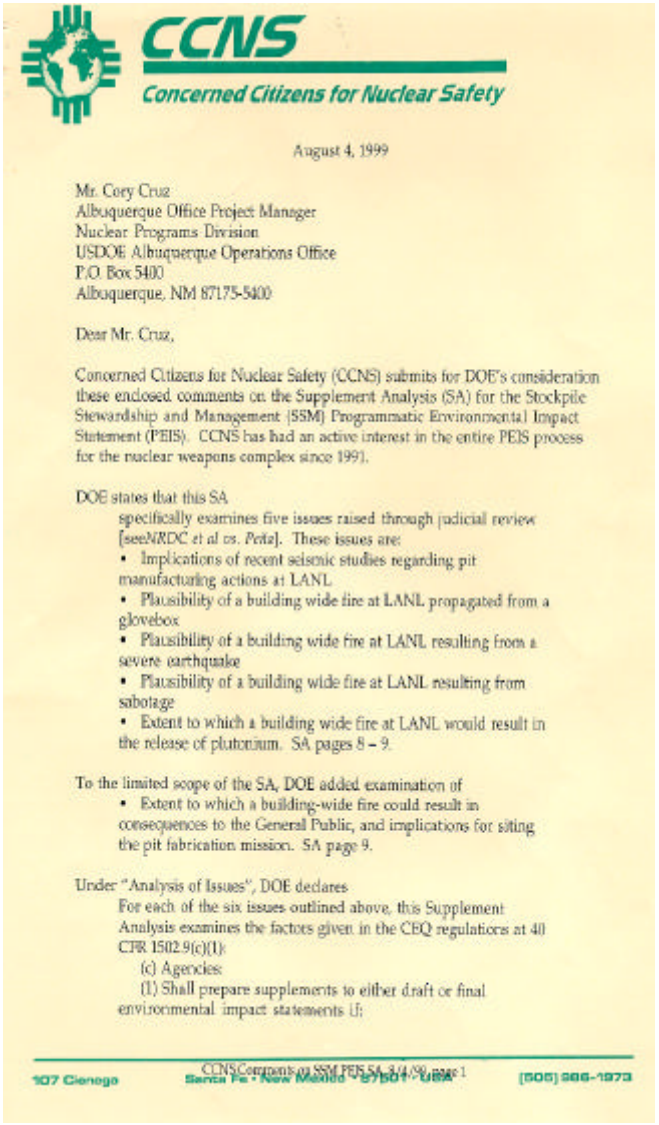
TA-55 has had no accidents that dusted the parking lot with contamination. The accident consequences, as given in this SA, are not meant to imply that these accidents happen on a daily or yearly basis. As stated before, the frequency of these events is very small.

The laboratory monitors for potential contamination in air emissions from PF-4. The laboratory also monitors for potential contamination in and around its facilities. To date, based on monitoring results, there are no indications of any contamination in the parking lot or work areas around PF-4 at TA-55. The laboratory does publish the results of its monitoring program in its annual environmental reports. The public reading rooms contain copies of these reports

Comment Response 1-7

These comments indicate that there are consequences in the accident analyses-specifically radiation sickness and cancer-caused deaths other than fatalities that should be considered.

As discussed in the analysis, the doses and the dose rates are not high enough for prompt fatalities to occur. This is also true for radiation sickness. The doses, as given in this analysis, would have to occur over seconds or minutes in order to cause radiation sickness. In this analysis, the doses are a 50-year cumulative effective dose equivalent. Doses at this level have not been demonstrated to cause immediate deaths or radiation sickness, however, cancer related deaths could occur. The potential for cancer related deaths, associated with the accidents analyzed in this SA, were included and are defined as latent cancer fatalities. The estimate was for 22-33 possible latent cancer fatalities.



CCNS
Concerned Citizens for Nuclear Safety

August 4, 1999

Mr. Cory Cruz
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Dear Mr. Cruz,

Concerned Citizens for Nuclear Safety (CCNS) submits for DOE's consideration these enclosed comments on the Supplement Analysis (SA) for the Stockpile Stewardship and Management (SSM) Programmatic Environmental Impact Statement (PEIS). CCNS has had an active interest in the entire PEIS process for the nuclear weapons complex since 1991.

DOE states that this SA

> specifically examines five issues raised through judicial review [see*NRDC et al vs. Peña*]. These issues are:
> - Implications of recent seismic studies regarding pit manufacturing actions at LANL
> - Plausibility of a building wide fire at LANL propagated from a glovebox
> - Plausibility of a building wide fire at LANL resulting from a severe earthquake
> - Plausibility of a building wide fire at LANL resulting from sabotage
> - Extent to which a building wide fire at LANL would result in the release of plutonium. SA pages 8 – 9.

To the limited scope of the SA, DOE added examination of

> - Extent to which a building-wide fire could result in consequences to the General Public, and implications for siting the pit fabrication mission. SA page 9.

Under "Analysis of Issues", DOE declares

> For each of the six issues outlined above, this Supplement Analysis examines the factors given in the CEQ regulations at 40 CFR 1502.9(c)(1):
> (c) Agencies:
> (1) Shall prepare supplements to either draft or final environmental impact statements if:

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(i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or
(ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed actions or its impacts. SA page 15.

The conclusion of the SA is
As a result of the information and analysis contained in this Supplement Analysis, DOE has concluded that none of the six issues analyzed in this Supplement Analysis either represents substantial changes to the actions considered in the SSM PEIS, or provide significant new information relevant to the environmental concerns discussed in the SSM PEIS, and therefore no supplement to the SSM PEIS is required. SA page 34.

DOE has perhaps successfully shielded itself from any further judicial review on the six narrow issues analyzed in the SA. CCNS does not wish to be endlessly argumentative for its own sake, but it does appear that DOE is changing the "ball game" described in the SSM PEIS. CCNS is now compelled to argue these points:
1) DOE has effectively proposed substantial changes to the actions considered in the SSM PEIS (and therefore to the Stockpile Stewardship Program as a whole);
2) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed actions or its impacts;
3) Significant new information relevant to the environmental concerns discussed in the SSM PEIS should be provided by DOE; and
4) Therefore a supplement to the SSM PEIS is required.

2-1

The following lines from DOE's recent "Lab/NV Integration Strategy" viewgraghs are evidentiary:
- Move promptly W80 warhead responsibility to LLNL
- Move promptly pit surveillance workload to LLNL
- LANSCE beamline is injector for big (50GeV) proton accelerator for radiography
- Build and support the future hydrodynamics radiography infrastructure at LANL
- ATLAS and Pegasus facilities to NV

None of these actions were contemplated in the SSM PEIS. DOE may well argue that these are just ideas or trial balloons that are not yet ripe for analysis. Circumstantial evidence indicates that is not the case, with emphasis on the use of the word "promptly." For ATLAS in particular, it should be noted that only two specific projects (ATLAS and the National Ignition Facility) had full environmental impact statements as integral components of the SSM PEIS. To now have ATLAS re-sited to Nevada is a clear and obvious significant change to the SSM PEIS and its Record of Decision.

2-2

CCNS Comments on SSM PEIS SA, 8/4/99, page 2

Comment Response 2-1

In summary, the commentor believes that, due to issues outside the scope of this SA, the SSM PEIS should be supplemented. These issues include the "LAB/NV Integration Strategy", infrastructure considerations at LANL, and the formation of a semi-autonomous nuclear weapons agency.

First, in responding to these comments, a clarification may be in order. DOE has promulgated a tiered approach to implementing its NEPA strategy. This tiered approach is consistent with NEPA, CEQ regulations, and DOE regulations. This tiered approach allows for broad actions to be considered in programmatic documents. Additional documentation, such as project specific or site specific NEPA documentation, can then be prepared to implement its programmatic decisions. As such, any necessary project specific or site specific implementation does not require the supplementing of the programmatic document, in this case the SSM PEIS.

Comment Response 2-2

The actions, described by the commentor as the "Lab/NV Integration Strategy", are being considered by the Department to implement portions of the SSM program. The consideration of such a strategy does not modify, reverse, or revise the purpose and need for the SSM program. It is essentially a business operating decision for implementing the SSM PEIS. This conceptual strategy and its potential outcome, as with any project in its early stages, will be reviewed to determine if additional NEPA documentation is necessary. At the conclusion of the Department's review, appropriate NEPA documentation will be developed and provided to the public for review, consistent with CEQ and DOE regulations. However, because the strategy is still being discussed within the Department at a conceptual level, there are no actions ripe for decision (certainly not within the context of this SA)..

There are also LANL-specific changes that buttress CCNS' argument for a Supplemental PEIS. These are:
1) Increasing evidence of the demise of the CMR Building's supporting role in plutonium pit production;
2) Related evidence of the eventual construction of a CMR-replacement facility at LANL's TA-55; and
3) Increasing evidence that the planned rebuild for the Nuclear Materials Storage Facility at TA-55 may never occur.

All of these changes are reflected in the current Senate Energy and Water Development Appropriation Bill (S. 1186). Specifically for the CMR Building, DOE argues in the SA that

> Impacts for operating CMR were considered in the SSM PEIS as part of the No Action Alternative, because CMR was not part of the proposal for the pit manufacturing mission (no pit manufacturing operations would be conducted in CMR). Instead, CMR is part of the LANL infrastructure that is maintained to support all of its missions. The SSM PEIS acknowledged that this infrastructure would be maintained and therefore DOE would not have to establish a new infrastructure at LANL to provide this support. SA page 22.

2-3

First of all, CCNS has always found DOE's arguments to not include the CMR Building upgrades in both the SSM PEIS and the LANL SWEIS as specious and contradictory to the spirit (if not the letter) of the National Environmental Policy Act. CCNS believes that the CMR's NEPA history is a classic case of DOE's chronic tendency towards improper NEPA segmentation. Secondly, now that it is increasingly likely that DOE will have to construct a new and substantial plutonium infrastructure at LANL ("substantial" defined as a CMR replacement building and possibly a special nuclear materials vault, all likely contiguous to or in close proximity to the plutonium pit production facility), DOE's argument that supporting facilities are part of LANL's "No Action Alternative" infrastructure and need not be analyzed is largely undermined.

With respect to S. 1186, the Office of Management and Budget has issued an interesting "Statement of Administration Policy." In it, OMB states

> The Administration believes that it is premature for the bill to include provisions for a realignment of the facilities and missions of the Department's National Laboratories and facilities in support of the Stockpile Stewardship program. The Department has begun initial studies of possible realignments and will work with Congress as soon as the Administration has completed its analysis. No major action can be taken to implement such a plan until appropriate studies are completed, including revisions to the Programmatic Environmental Impact Statement on Stockpile Stewardship and Management.

CCNS Comments on SSM PEIS SA, 8/4/99, page 3

Comment Response 2-3

As discussed in the responses to comments 2-1 and 2-2, the potential for infrastructure changes at LANL do not change the purpose and need for the SSM program or the ROD. In effect, whether or not the SSM program was implemented, the infrastructure at LANL would have to be maintained to support the ongoing missions which currently exist at LANL.

Consistent with DOE's NEPA regulations, the LANL SWEIS has dealt with the issues of maintaining the infrastructure and providing the capability and capacity to implement the SSM PEIS. As stated in this SA and referenced in the LANL SWEIS, pit production is not the driver for considering alternatives to analytical chemistry support at the laboratory nor is it the driving requirement for the NMSF. The pit production mission does not require an overall increase in material handling, storage, or chemical analysis. These are required as part of the baseline infrastructure needed to conduct plutonium operations at the laboratory. Today (and for at least the next ten years), the pit production mission can be supported by the infrastructure at the laboratory (any exception to this are explicitly analyzed in the SSM PEIS and the LANL SWEIS). DOE agrees that a major realignment of the facilities and missions needed at the laboratories to support stockpile stewardship would require a reexamination of the SSM PEIS. However, DOE is not actively pursuing such a major realignment at this time.

Comment Response 2-4

Regardless of how the Department is organized, it still must comply with all ES&H laws, rules, and regulations, including NEPA. The purpose and need for the SSM program would not change with the internal reorganization of the Department. The environmental risks considered in the PEIS would not change, because of the re-organization. The basis for the decision in the SSM PEIS would not change because of a re-organization. For these reasons, an internal reorganization would not cause DOE to supplement the SSM PEIS.

Ultimately, the realignment of an organization or agency and the

OMB "Statement of Administration Policy", June 11, 1999, page 3. Emphasis added.

OMB claims that this statement was "coordinated with the concerned agencies", which, in this case, would have to be DOE. CCNS then agrees with DOE's position, as reflected by OMB, that no major actions should be taken until the SSM PEIS is revised. As DOE's realignment plans, as evidenced by the viewgraphs, appear to be well advanced, DOE should begin to prepare a supplement to the SSM PEIS without delay. **2-3 Cont.**

An additional broad programmatic circumstance reinforces the need for a supplemental PEIS - - the virtual political certainty that a semi-autonomous nuclear weapons agency will be created. Currently, the sticking point of ES&H responsibility remains a critical part of ongoing congressional debate. A PEIS supplement should examine whatever adverse effects a greater degree of autonomy might have on what is already DOE Defense Program's dismal ES&H history. CCNS believes that a semi-autonomous agency may well represent "significant new circumstances or information relevant to environmental concerns and bearing on the proposed actions or its impacts." 40 CFR 1502.9(c)(1)(ii). To repeat, DOE should begin to prepare a supplement to the SSM PEIS without delay which analyzes and considers all of these issues. **2-4**

Respectfully submitted,

Jay Coghlan,
LANL Program Director

Comment Response 2-4 (Cont.)

resulting roles and responsibilities is a business decision. Such decisions themselves do not typically result in environmental impacts. If it becomes apparent that actions resulting from these decisions could somehow change the environmental impact of the agency's programs, then additional NEPA reviews would be required.